

EXHIBIT 44

ZONOLITE NOW...

Save on fuel,
add comfort



ZONOLITE
Vermiculite
Insulating Fill
Easiest of all to install.
Just pour it, level it,
leave it!

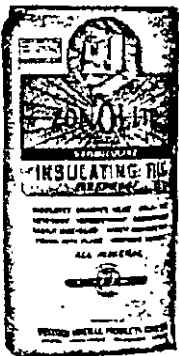
\$1.45

per bag
covers
17 sq. ft. 3" thick

Just pour
it, level it,
leave it!

α V-8, Fo

ZONOLITE INSULATING FILL



Zonolite Insulating Fill is used to insulate and sound-deaden side-walls and ceilings of all types of buildings. Zonolite Fill has one of the best insulation factors of any insulation on the market ("K" factor .28 B.t.u.).

Zonolite Insulating Fill comes in 4 cu. ft. bags which weigh about 23 lbs. No special installation equipment is needed. Zono-

lite Fill is poured from the bag, like popcorn. It flows readily around pipes, wiring, etc., to make a complete, uniform fill without tamping, cutting, or nailing.

Zonolite Insulating Fill is a non-conductor of electricity and can be safely installed over or around electrical wiring. It is rot-proof and does not permit tunneling or nesting by rodents. It does not attract vermin or termites. It is safe to handle because it is non-irritating to the skin and lungs.

It is **safe** to
handle
because it is
non-irritating
to the skin
and lungs.

PLAINTIFF'S
EXHIBIT

44
MDL 1376

EXHIBIT

32

Emergency Notice

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\$1.45

per bag
covers
17 sq. ft. 3" thick



ZONOLITE
Glass Fiber Home
Insulation

Super-efficient... 3
thicknesses for every
insulating need.

\$3.47

per M



ZONOLITE
Masonry Fill
Insulation

Double insulating value
of block and cavity
with ZONOLITE!

\$1.70

per M

**J. NEILS
LUMBER CO.**

We will be closed Veteran's
Day, Nov. 11.

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V-8, Turboglide, Power Steering and Brakes
Rubber, Low Milcage, Radio and Heater,
Glass.

\$1895.00

1958 Ford Fairlane 500

Four-door Hardtop, V-8, Fordomatic, Power
ing and Brakes, Radio, Heater, Low Mileage.

\$1795.00

1957 Ford Station Wagon

V-8, Fordomatic, Radio, Heater.

\$1450.00

1957 Chev. Wagon

V-8, Straight Stick, Radio, Heater, Good R
Undercoated.

\$1695.00

1956 Buick Special

4-door Hardtop, Power Steering, Brakes and
Heater, V-8 Motor, Brand New Dynaflo.

\$1350.00

Each Car Warranted in Writin

All Cars Winterized

Friendly GMAC Terms

JAQUETH'S, INC.

Since 1916

EXHIBIT 3

31.6

Western News
November, 1960

HOW TO DO IT

Installing All Forms of Zonolite* Insulations

INSULATION
ZONOLITE
HAND BOOK

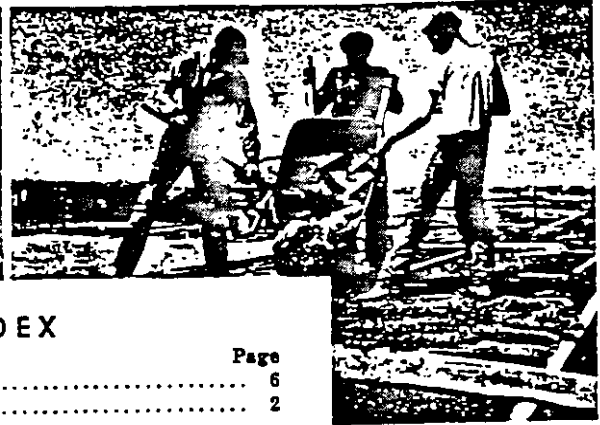
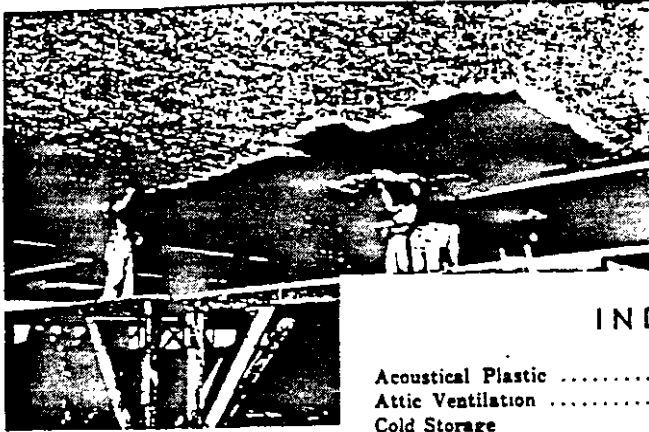
*Zonolite is the registered trademark of the Zonolite Co.

EXHIBIT

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THIS booklet is designed to supply "How To Do It" information for installing all forms of Zonolite brand vermiculite. For more technical information or help with special problems, write our Engineering Department.

Zonolite brand of expanded vermiculite is one of the mica minerals. It is fireproof, rot-proof, permanent, and a good insulator against heat and cold. Zonolite Insulations are marketed through lumber and building material dealers.



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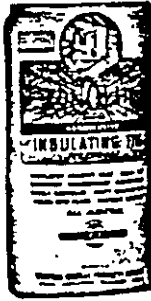
PREFACE

The design data, methods, and specifications for the use of the products outlined in this manual are the result of laboratory research and field tests made under actual service conditions. No attempt is made in this manual to cover each and every specific use to which the Zonolite products described in the manual may be adapted. This is due to the many factors which enter into the field of building construction and engineering, such as weather conditions, design, equipment, standards of labor, steel, cement, and other materials used in combination with, or as accessory to, Zonolite products. Because of such factors, Zonolite Company does not warrant expressly or impliedly the

use of the materials described in this manual, or the results that may be obtained from the use of specifications, design data, and methods herein outlined. Due to the variable conditions which may be encountered on any particular job, and the different results that may be obtained from the use of other materials used in combination with, or accessory to, the Zonolite products listed herein, it is our intent in the publication of the specifications, methods, and design data contained herein to furnish a guide only for architects, engineers, contractors, plasterers, and fabricators in adapting Zonolite products to their particular requirements.

ZONOLITE Brand Vermiculite
Sold by Lumber and Building Material Dealers Everywhere

ZONOLITE INSULATING FILL



Zonolite Insulating Fill is used to insulate and sound-deaden side-walls and ceilings of all types of buildings. Zonolite Fill has one of the best insulation factors of any insulation on the market ("K" factor .28 B.t.u.).

Zonolite Insulating Fill comes in 4 cu. ft. bags which weigh about 23 lbs. No special installation equipment is needed. Zono-

lite Fill is poured from the bag, like popcorn. It flows readily around pipes, wiring, etc., to make a complete, uniform fill without tamping, cutting, or nailing.

Zonolite Insulating Fill is a non-conductor of electricity and can be safely installed over or around electrical wiring. It is rot-proof and does not permit tunneling or nesting by rodents. It does not attract vermin or termites. It is safe to handle because it is non-irritating to the skin and lungs.

Zonolite Insulating Fill is a natural mineral that will not draw moisture from the atmosphere. In the event of a roof leak, water will be readily picked up by the Zonolite, and held until conditions are right for it to dry.

The approximate coverage of Zonolite Insulating Fill is as follows:

Thickness in Inches	2"	3"	3½"	4"	5½"
Coverage per bag in sq. ft. based upon joists spaced 16" on center	26	17	14	13	9

A thickness of 3½", with a minimum of 3", is recommended. Insulation is installed for two reasons: to keep out summer heat, and to keep heat within the building in winter. Both purposes are served better with thick insulation. The low cost of Zonolite makes possible this greater thickness for essentially the same cost as the 1" or 2" recommended by manufacturers of higher-priced materials.

INSTALLING ZONOLITE INSULATING FILL

Side-walls: Check attic to see if Zonolite can be poured into side-walls directly from attic. If walls are open (balloon construction), drop a weight on a line into each stud space, to determine where fire-stops or headers would prevent the Zonolite from going clear to the foundation. After these are located, pour Zonolite into side-walls.

If construction is such that a plate at the ceiling line blocks off the side-wall, it may be possible to bore a 1½" hole through this plate between each studding space. Check wall for fire-stops and headers with a weight on a line. Pour Zonolite Insulating Fill over the holes which have been bored, allowing it to run into side-walls until walls are completely filled. This eliminates the necessity of removing siding from the outside, except below windows and where fire-stops occur, particularly important in stucco or brick-veneer construction.

If Zonolite cannot be installed from attic, entry can be effected from outside. Remove a row of siding

Approximate Number of Bags of Zonolite to Cover Flat Ceilings to Full Depth of 2" x 4" Joists 16" O.C.

Ft.	18'	20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'	42'	44'	46'	48'	50'
18'	23	25	28	30	32	35	37	40	42	45	47	50	52	55	57	60	62
20'	25	28	31	33	36	38	41	44	47	50	53	55	58	61	64	66	69
22'	28	31	33	37	39	43	46	49	52	55	58	61	64	67	70	73	76
24'	30	33	37	40	43	47	50	53	57	60	64	67	70	73	76	80	83
26'	32	36	39	43	47	50	54	57	61	64	68	72	76	79	83	86	90
28'	35	38	43	47	50	54	58	62	66	70	74	78	82	85	89	93	97
30'	37	41	46	50	54	58	62	66	70	75	79	83	87	91	95	99	102
32'	40	44	49	53	57	62	66	70	75	80	84	88	93	97	102	106	110
34'	42	47	52	57	61	66	70	75	80	84	89	94	99	104	108	113	117
36'	45	50	55	60	64	70	75	80	84	89	95	100	105	110	115	120	125
38'	47	53	58	64	68	74	79	84	89	95	100	105	110	116	121	126	131
40'	50	55	61	67	72	78	83	88	94	100	105	110	116	121	127	133	138

To find number of bags for other than 3½" thickness, multiply number of bags shown in table by following factors:

For 3" Multiply by .83
For 4" Multiply by 1.1
For 5½" Multiply by 1.55

and sheathing at ceiling line all around the building. Drop a weight on a line into each exposed studding space to determine location of fire-stops and headers. Pour Zonolite directly from bag into walls. A simple, home-made trough facilitates pouring Zonolite and eliminates spilling. To insure a complete fill below plaster clinches and other obstructions, vibrate wall slightly with a rubber mallet or short 2 by 4 as Zonolite is poured in.

Zonolite Insulating Fill (Continued)



Installing Zonolite Fill below window

It is important that walls be completely filled to top. In some cases, this can be done by tacking building paper to the exposed portion of the studs, allowing top edge of paper to flare. Pour Zonolite behind this paper, and press paper and insulation into place. Replace sheathing and siding. If this method is not possible, due to an over-hanging eave, top portion of walls can be filled by hand-packing fibre insulation.

It is important to insulate below windows and fire-stops located as outlined previously. Procedure for insulating these locations is exactly the same as for insulating walls from the outside.

BALLOON CONSTRUCTION: In new construction, the installation of Zonolite is made very simple by constructing the wall open from attic or loft, by putting the 2 by 4 plate on top of ceiling joists, rather than below. This allows Zonolite to be poured from attic down into walls after the studs have been sheathed and lathed. Contractors using this method say that Zonolite can be installed faster than any other type of insulation: no cutting, no fitting, no tacking; just let it run down into the open wall space.

Another advantage of using balloon type construction is that Zonolite can be poured down wall after plaster has had a chance to dry thoroughly. Drying is accelerated by circulation of air on both sides of the lath and plaster. This saves time for the contractor and allows casing to be done sooner with safety because the plaster has dried faster.

Zonolite Fill should be poured under window openings as the lath or other lining is installed.

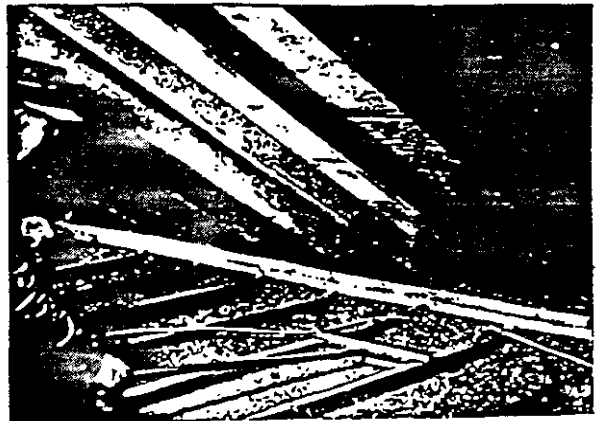
Vapor Barriers: A vapor barrier will help maintain desirable humidity within the rooms and is good construction practice. It should be installed on the inside (warm side) of the wall. The vapor barrier should consist of a glossy-surfaced, asphalt-impregnated building paper nailed to the studs before the lath is applied. Use Treated Sisalkraft, Bird's Neponset, Ruberoid's Giant Sheathing, or equal. Foil-backed rock-lath provides good vapor resistance. Due to the joints between the lath, it is not so effective as a good vapor-proof paper, but it has the advantage of being easier to apply.

Unfloored Attics: Pour Zonolite Insulating Fill into each joist channel, and level off to proper depth with a wooden screed. Minimum thickness should be 3".

Floored Attics: Remove two or three floor boards at convenient intervals, push Zonolite under floor with rake, and level.

To reach inaccessible attic areas or pockets, make small openings in the roof.

Attic Ventilation: Installation of louvers is good construction practice. The number of louvers is governed by the size of the structure. The ideal condition is to provide 1 sq. ft. of ventilator to each 200 sq. ft. of attic area.



Leveling Zonolite Fill in attic

Zonolite Insulating Fill (Continued)



Opening in flat roof for Zonolite installation

Flat Roofs: If the clearance under lowest portion of roof does not allow sufficient working space, make an opening through roof. Opening should be 2 ft. wide, beginning at lowest point in roof at the center, and extending as far as necessary toward high end. Pour Zonolite between joists, and rake or push laterally to either side-wall to desired level and depth. If building is too wide to cover from one opening, additional openings should be made in same manner. Carefully reseal roof opening.

Sound-Deadening: When sound-deadening partition walls, studs should be staggered so they are not continuous through the wall. One set of studs is placed to support one side of the partition, and a separate set of studs is placed for the opposite side of the wall, so that solid wood does not extend through partition. Wall is then filled with Zonolite. The sound-deadened wall can be maintained at normal thickness by using 2" by 3" studs. A wall of this thickness will provide satisfactory results except in extreme cases. Good sound-deadening results between floors can be obtained by providing a set of joists to support the ceiling, separate from joists supporting the floor above, and placing approximately 4" of Zonolite Fill over the ceiling.

Animal Shelters: Existing animal shelters which are cold or in which excessive condensation occurs can be made warm and dry by the addition of Zonolite Insulating Fill in side-walls and ceiling, a Zonolite Insulating Concrete floor (See page 9), and an efficient ventilating system.

In buildings of wood construction, nail vapor barrier, described previously, to inside of studding and ceiling joists. Over this apply the lining (asbestos board, treated gypsum board, or lumber). Pour Zonolite Fill into cavity as lining is installed.

In existing buildings of masonry construction, fur out side-walls with 2" by 3" furring strips well anchored to the wall. Tack vapor barrier to furring strips. Pour Zonolite 3" thick into cavity as lining is applied over vapor barrier. Apply vapor barrier and lining on ceiling joists, and insulate between the joists with 3" or more of Zonolite.

It is a mistake to think that only double boarding outside the studs will sufficiently insulate the side walls. This "double boarding" method is questioned by many. Cora Cooke, University of Minnesota Agriculture Extension Service, says:

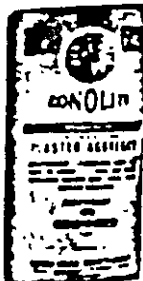
"It is known from experience that double-boarding outside the studding is far from adequate. The improvement in insulating value made when the layers of boards are nailed to the inside and outside of the studding is slight, and the room is still subject to rapid changes in temperature. The air space thus provided is far less effective as an insulator than is commonly supposed. Fill materials offer a very practical solution." (POULTRY HOUSING, by Cora Cooke.)



Warm, dry Zonolite Concrete floors reduce farrowing loss.

ZONOLITE PLASTER

(Covered More Completely in Folder PA-2)



Zonolite Plaster Aggregate is a specially-sized vermiculite aggregate to be used in place of sand. When mixed with gypsum, it produces a plaster that is light in weight, has good insulation value, and provides remarkable fire protection.

Zonolite Plaster was the first material on the market to obtain official 4-hour fire ratings for protecting steel floors, roofs, beams, trusses, and girders with a 1" application. (Vermiculite Institute fireproofing booklet available on request.)

Zonolite Plaster on the wall weighs less than one-third as much as sand plaster. Five bags of Zonolite Aggregate (180 lbs.) replace 2,000 lbs. of sand.

Zonolite Plaster has more than three times the insulating value of sand plaster. It has a "K" factor of .95, compared with 3.3 for sand plaster.

Zonolite is the most uniform aggregate available for plaster. It meets A.S.T.M. Standard Specifications, and carries the Underwriters' Laboratories seal. This means that the material is examined at regular periods for screen analysis, density, and absence of impurities.

Zonolite Plaster Aggregate bags contain 4 cu. ft. and weigh about 32 lbs.

THICKNESS (RECOMMENDED MINIMUM)

Base	
Gypsum Lath	1/2"
Metal Lath	3/4"
Masonry	5/8"

For estimating purposes, 1/2" Zonolite Plaster over gypsum lath, figure 6 bags Zonolite, 9 bags gypsum plaster per 100 square yards.

Materials required over masonry and metal lath bases will depend on the evenness of the wall and the depth of the key.

Zonolite Plaster is applied exactly as sand plaster. One-coat browning is satisfactory over gypsum lath. When other types of lath are used, apply scratch and brown coats. Allow scratch coat to set before applying brown coat.

MIXING AND APPLICATION

The following mixes, on a bag basis, assure accurate proportioning. They are in complete agreement with American Standards Association specifications.

Only sufficient water to make a workable mix shall be added. Water shall be fresh and of potable quality.

Over Gypsum Lath (One Coat Browning)

1 bag	Zonolite Plaster Aggregate
1 1/2 to 2 (100 lb.) bags	Gypsum Neat Plaster

Over All Other Lath

Scratch Coat:	
1 bag	Zonolite Plaster Aggregate
2 (100 lb.) bags	Gypsum Neat Plaster
Brown Coat:	
1 bag	Zonolite Plaster Aggregate
1 1/2 to 1 3/4 (100 lb.) bags	Gypsum Neat Plaster

Insulation Lath: Care should be taken that first coat of plaster applied to insulation lath sets within 1 to 2 hours. Fiber insulation lath should not be wet down prior to receiving plaster. Thickness of plaster should not be less than 1/2". Plasterer should guard against grounds that are too thin.

Over Masonry (Scratch and Brown Coat)

1 bag	Zonolite Plaster Aggregate
1 1/2 to 1 3/4 (100 lb.) bags	Gypsum Neat Plaster

In plastering over masonry bases that exhibit high suction, it may be necessary to increase aggregate content. Under no circumstances should more than 1 bag of Zonolite Aggregate be mixed with 100 lbs. of gypsum plaster.

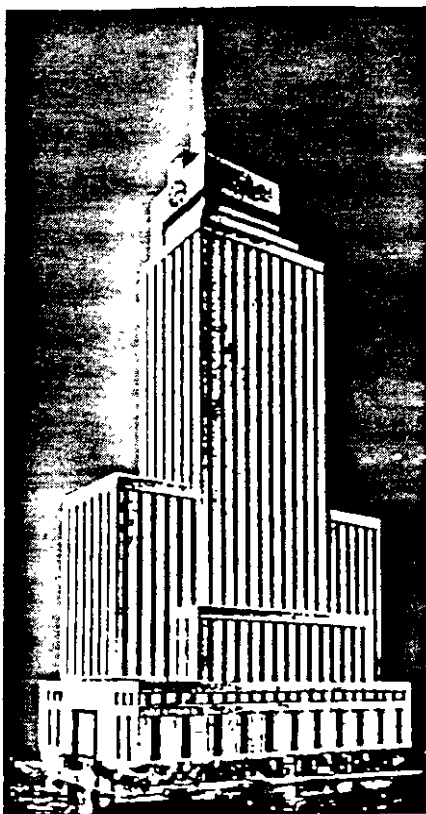
When Zonolite Plaster is applied directly to monolithic concrete surfaces, concrete should first be coated with a specially-prepared bond plaster for use on concrete. Aggregate shall not be added.

Avoid bituminous plaster bond.



Fireproofing steel beams with 1" of Zonolite Plaster

Zonolite Plaster (Continued)



Mercantile Bank Bldg., Dallas, Tex., Araproofed with Zonolite Plaster

SETTING TIME

Gypsum manufacturers adjust the set of gypsum to fit local sand conditions by adding varying quantities of retarder. If a strongly retarded gypsum is used with Zonolite, a slow set may be encountered. Plaster should set in 3 to 6 hours. Delay of set may cause excessive shrinkage, resulting in cracked plaster. To avoid slow set, add a small quantity of commercial accelerator to mix, amount easily determined on job. On large jobs, the gypsum company should be advised that vermiculite aggregate is to be used.

FINISH COATS

Any of the conventional plaster finishes, such as lime putty or sand float, may be applied over a brown coat of Zonolite Plaster. (See Zonolite Plaster Finish and Acoustical Plastic.) Zonolite Plaster develops suction faster than sand plaster. Finish coat should be applied to a Zonolite base coat that is semi-green. If brown coat is dry, it shall be evenly wetted but not saturated. Too much water in brown coat may cause blistering.

TEMPERATURE AND VENTILATION

Plaster shall not be applied to surfaces that contain frost. A minimum temperature of 40° F. shall be maintained prior to and during application of plaster, and until it is completely dry. Protect fresh plaster from excessive heat, and provide adequate ventilation. Drying should commence immediately after plaster has set, and be continuous until thoroughly dry. Temperatures as uniform as possible shall be maintained during drying period. Prevent dry-outs prior to set by screening openings in hot weather.

For additional information, see American Standards Association, "Standard Specifications for Gypsum Plastering," 70 E. 45th St., New York 17, N. Y.

ZONOLITE PLASTER FINISH

(Covered More Completely in AD-3)



Zonolite Plaster Finish Aggregate is a fine-sized vermiculite for trowel finish only. It shall be mixed with unfibred gypsum plaster.

Zonolite Plaster Finish provides a hard finish coat with a pleasing tan cast. Gypsum-to-gypsum application assures the strongest possible bond to the base coat.

Plasterers favor Zonolite Plaster Finish for a number of reasons; primarily, because it eliminates the time-consuming hand operation of mixing lime and gypsum gauging plaster. All mixing is done by the tender.

Zonolite Plaster Finish Aggregate is packed in 2 cu. ft. bags that weigh about 22 lbs.

STANDARD PROPORTIONS

1 bag (2 cu. ft.)	Zonolite Finish Aggregate
2 bags (100 lbs. each)	Unfibred Gypsum Plaster
16 gals. (Approx.)	Water
This batch will cover approximately 40 yds.	

MIXING AND APPLICATION

Place approximate amount of water in mixing box. Spread gypsum plaster over water, and allow to soak.

After all dry plaster has been taken up by the water, add Zonolite Finish Aggregate, and mix thoroughly. Add more water as necessary to obtain workable consistency.

Zonolite Plaster Finish shall be applied over a base coat in a semi-green condition. If brown coat is dry, it should be evenly wetted, but not saturated. Too much water in brown coat may cause blistering. The thickness of Zonolite Plaster Finish shall be from 1/16 to 1/8 inch. Additional thickness is permissible to level uneven base coat.

Zonolite Plaster Finish is applied the same as a putty coat. A tight scratch is first applied and allowed to draw. This is followed by a fill-in coat, troweled with water to a smooth finish, free from cat faces and other blemishes.

Provide adequate heat and ventilation, and observe usual precautions to prevent dry-outs.

PAINTING

Oil-base paints should not be applied to any plaster until it is dry. If immediate decoration is desired, use water-base paint.

Zonolite Plaster Finish produces more suction than other smooth finishes, and adequate sizing is recommended.

ZONOLITE ACOUSTICAL PLASTIC

(Covered More Completely in Folder PA-5)



Zonolite Acoustical Plastic is a ready-mixed acoustical plaster that requires only the addition of water. It can be troweled over any clean, firm, water-resistant surface, such as brown coat plaster, masonry walls, oil-painted surfaces, etc. It is easily applied to irregular surfaces.

Zonolite Acoustical Plastic has a noise reduction coefficient of .65 for a $\frac{1}{2}$ inch thickness. In effect this means that 65% of noise is absorbed. Few other acoustical materials of equivalent thickness provide as much sound absorption.

Zonolite Acoustical Plastic is FIREPROOF. Combustible ceilings in public buildings are hazardous. Protect this critical area from flash fires with Zonolite Acoustical Plastic.

One bag of Zonolite Acoustical Plastic will cover approximately 4 sq. yds. $\frac{1}{2}$ " thick. Mix with approximately 10 gals. of water for good consistency.

MIXING

Pour water into a clean mixing box or mechanical mixer. Add dry Zonolite Acoustical Plastic, and mix thoroughly. Allow to soak 30 minutes, and re-mix prior to application. No set takes place with Zonolite Acoustical Plastic; therefore, large quantities can be mixed ahead and may stand in the mixing box over night.

WATERPROOFING

When installation is made above swimming pools, directly to cold surfaces where condensation may develop, or other places where damp conditions exist, specify plain Acoustical Plastic (to which no pigment has been added). Add Zonolite Waterproofing Admix in the proportion of 1 qt. of Admix to each bag of Zonolite Acoustical Plastic. The order of mixing is then: Water, Admix, and Zonolite Acoustical Plastic. Admix and water must be stirred together before Acoustical Plastic is added.

The Admix will darken the color of the finished plastic

Page 4

APPLICATION

Apply in two coats, each about $\frac{1}{4}$ " thick, to a finished thickness of $\frac{1}{2}$ ". Allow first coat to dry before applying second coat. A dry first coat assures a finer texture in finish coat.

Surface may be left under an aluminum or smooth wooden darby. If a finer texture is desired, trowel lightly day after finish is applied. Darby or trowel finish coat in one direction only. Varied textures may be obtained by floating or stippling while wet. Any material left loose by stippling should be pressed back into place by troweling lightly.

To avoid joinings, use sufficient plasterers to complete entire area in one operation. If dry joinings are unavoidable, thoroughly wet back 3 ft. of previous application, and join as though application were continuous.

PAINTING

The new Zonolite Acoustical Plastic is a pleasing off-white and may be satisfactory without further decoration. Where colors are desired, or to obtain a whiter appearance, spray paint with non-bridging, water-thinned resin emulsion or casein paint, such as Kemtone, Texolite, or Spred. Thin each gallon of paint with about 1 gal. of water. Paint may be brushed on, but spray painting is preferable.

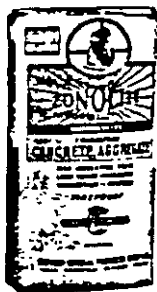
Initial decoration and redecoration will not reduce the sound-absorption coefficient provided properly thinned water-base paint is used.



Zonolite Acoustical Plastic Ceiling, school room

ZONOLITE INSULATING CONCRETE

(Covered More Completely in Concrete Manual CA-1)



Zonolite Insulating Concrete, the lightest of all mineral concretes, is a mixture of Portland cement, Zonolite Concrete Aggregate, and water. Its principal uses are:

Floors: Grade level floor insulation Lightweight floor fills Insulation below radiant heat pipes and ducts Cold storage Farm buildings	Roof Construction: Lightweight decks Insulating fills Slope to drains; cants, saddles, crickets	Masonry Wall Insulation: Double (Cavity) Single unit
Tanks: Milk cooling		

Properties of Zonolite Concrete Mixes and Materials Required for 1 cu. yd. of Placed Concrete:

Mix by Volume			Density in Lbs. Per Cubic Foot	Strength in Pounds Per Square Inch		Thermal Conductivity ("K") in B.t.u. Per inch Thickness Per Sq. Ft. Per Hour Per Degree F.	*Approximate Quantities Required for One Cu. Yd. of Placed Zonolite Concrete		
Bags Portland Cement	Cu. Ft. Zonolite Concrete Aggregate	*Gallons Water		Compressive Strength 1" Dia. on 6"x12" Cylinders	Indention Strength 1" Dia. on 3"x12" Slab		Bags Portland Cement	Bags Zonolite Concrete Aggregate	Gallons Water
1	4	12	35	325	350	0.97	7½	7½	85 to 95
1	6	18	25	125	160	0.76	5	7½	85 to 95
1	8	24	22	70	121	0.60	3¾	7½	85 to 95
1	16	48	16	11	28	0.46	1⅞	7½	85 to 95

(Each bag of Zonolite Concrete Aggregate contains approximately 4 cu. ft.)

†A wet mix is recommended, a 6" to 9" slump as measured by a standard slump cone.

*These figures are recommended for estimating purposes. Allowance must be made for sag in forms and loss in mixing and placing.

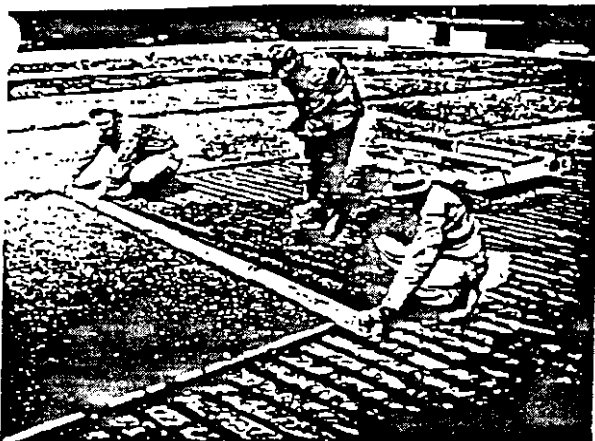
MIXING AND PLACING ZONOLITE CONCRETE

Job Mixed: Zonolite Concrete shall be mixed in a mechanical mixer, preferably of the paddle type which has a stationary drum with rotating paddles. Any sequence of charging the mixer is satisfactory which results in all water and all aggregate coming together at one time. The yield of concrete will be reduced if either water or aggregate is added slowly while mixing continues. Mix to uniform and pourable consistency (approximately 3 minutes). Place the mixed concrete promptly to avoid any change in slump or consistency.

Transit Mixed:

1. Place all water, cement, and aggregate (in this order if possible) for required batch in the mixer.
 2. Turn drum at plant only enough to obtain uniform mix.
 3. Do not turn drum while driving from plant to job.
 4. At job, remix approximately 1 minute. Add water if necessary to obtain 6" to 9" slump.
- Over-mixing or delay in placing will result in low yield.

Zonolite Insulating Concrete (Continued)



Typical finished surface after screeding

FINISHING

Zonolite Concrete shall be placed in panels of a width capable of being screeded and finished. Screeding usually provides the desired finish. A smoother finish may be obtained by floating. Troweling is unnecessary and is not recommended.

CURING ZONOLITE CONCRETE

The curing of any concrete is particularly important. Cement becomes a strong binder only because of its chemical reaction with water. To allow the cement and water to complete the chemical reaction and to prevent the water in the mix from escaping, surface curing is necessary.

The following methods of curing sand-and-gravel concrete apply also to Zonolite Concrete:

Warm and Hot Weather Construction:

1. Keep the surface constantly wet with water for three days. A covering of wet burlap or wet canvas may be used. The covering is placed as soon as it can be done without marring the surface, care being taken to keep covering continuously wet by sprinkling. When a cover is not used, sprinkling is begun as soon as the concrete has set.

2. Ponding is a good method of curing for flat surfaces, such as floors and roofs. With this method, the surface to be cured is surrounded by small earth dikes, and kept flooded with water for about three days.

3. Another method suitable for curing concrete is the use of asphalt curing compounds which prevent rapid evaporation of the mixing water needed for proper hydration of the cement. These coatings are raved on immediately after the free water has appeared from the concrete's surface. Follow manufacturer's recommendations for coverage. The surface must be well coated with asphalt.

Cold Weather Construction:

It is not advisable to place Zonolite Concrete if temperatures below 30° F. are expected within two or three days. If job conditions are such that it is necessary to place Zonolite Concrete in temperatures below 30° F., the following precautions should be observed:

1. Use high early strength cement.
2. The concrete must be placed in the forms at a temperature of not less than 60° F. nor more than 80° F. This is accomplished by heating the mixing water, taking care that water is not heated to more than 175° F.
3. After the concrete is placed, it must be kept from freezing for at least five days. Cover with heavy paper, and then with hay or straw. Provide heat with steam, if available, or with some form of salamander. Do not place salamanders too near the fresh concrete to cause rapid drying.

The strength gain of any concrete is slow at low temperatures. For this reason, the temperature of the concrete should be maintained above 50° if possible. The effect of temperature is given by the following data from the American Concrete Institute:

Average 24 Hr. Temperature	Days to Reach Equal Strength
70° F.	7 days
60° F.	15 days
50° F.	23 days
40° F.	31 days

The fresh concrete must be protected against damage from other construction activity. The length of time such protection will be required depends entirely upon the temperatures and moisture present during the early stages of curing.



Radiant heat pipes on Zonolite Insulating Concrete

ZONOLITE CONCRETE FLOORS

Zonolite Insulating Concrete floors provide efficient thermal insulation in heated buildings, in refrigerated buildings, and in animal shelters. Zonolite Concrete floors are fireproof, rot-proof, permanent, and easily installed.

Drainage: Provide adequate drainage in all types of floor construction.

Animal Shelters: Properly installed, Zonolite Concrete floors will remain dry, even in animal shelters where relative humidity is unusually high. They can be quickly installed in old or new structures.



New Floors: Fill area with gravel to within 3" of top of concrete footings. Place 3" thick slab of Zonolite Insulating Concrete, 1-to-6 mix, level with top of footing or sill. Allow to stand over night to set. Place 2" of sand concrete topping for permanent wearing surface.

1-to-6 Mix	1½ bags 1 bag 18 gals.	Zonolite Concrete Aggregate Portland cement Water (Approx.)
-------------------	------------------------------	---

This mix will cover approximately 22 sq. ft. 3" thick.

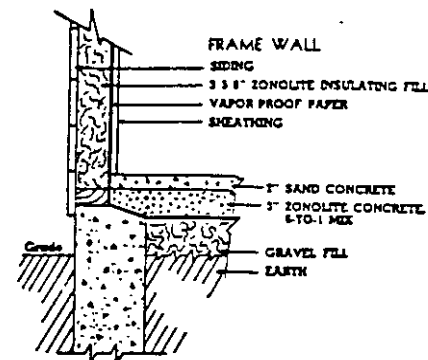
Existing Floors: Lay heavy, asphalt-impregnated roofing paper over old floor of ordinary concrete or tile. Place 3" thick slab of Zonolite Insulating Concrete, 1-to-6 mix. Allow to stand over night to set. Place 2" of sand concrete topping for permanent wearing surface.

Grade Level and Radiant Heat Floors: (Covered More Completely in Folder CA-4.) Fill floor area with gravel to within 4" of top of concrete footing. Lay the vapor barrier over gravel fill. Vapor barrier should consist of two layers of glossy-surfaced, asphalt-impregnated paper with edges lapped 4" and sealed (Treated Sisalkraft, Bird's Neponset, Ruberoid's Giant Sheathing Paper, or equal), or two layers of tarred felt in three moppings of hot pitch. Place Zonolite Insulating Concrete, 1-to-6 mix, level with top of footing.

1-to-6 Mix	1½ bags 1 bag 18 gals.	Zonolite Concrete Aggregate Portland cement Water (Approx.)
-------------------	------------------------------	---

This mix will cover approximately 16 sq. ft. 4" thick.

Radiant heating pipes or ducts, where used, are laid on the Zonolite Concrete slab, and covered with a



Detail, Farm Building Floor

sand concrete slab to a thickness of 1" above the pipes. A light wire mesh embedded in the sand concrete topping minimizes cracking.

Design the topping to carry the anticipated load. Minimum thickness, 2".

Cold Storage Floors: (Covered More Completely in Cold Storage Manual CS-1.)

For best results, the floor should be constructed above ground with air circulation below. Floors directly on the ground are satisfactory for room temperatures above 20° F. Make sure of good drainage away from the under side of floor (see Zonolite fill floors, page 12, for temperatures below 20°). If in doubt, consult our Engineering Department.

First provide structural floor capable of carrying floor loads. Over this place a good VAPOR BARRIER—2 layers of tarred felt mopped in hot pitch. Next, place required thickness of Zonolite Concrete, 1-to-8 mix, as per table below:

Temperature	Recommended Thickness	
	On Ground	Above Ground
Above 50°	4"	4"
50 - 35	6"	6"
35 - 20	8"	8"
20 - 10	—	10"
10 - 0	—	12"
0 - -10	—	14"
Below -10	—	16"

1-to-8 Mix	2 bags 1 bag 24 gals.	Zonolite Concrete Aggregate Portland cement Water (Approx.)
-------------------	-----------------------------	---

This mix makes approximately 7 cu. ft. of concrete.

After the Zonolite Concrete has set and become dry, broom the surface clean and apply sand concrete topping capable of supporting anticipated loads. Minimum thickness, 2". Do not mix topping too rich. 1 part cement, 3 parts sand, 2 parts pea gravel is recommended. A reinforcing mesh in the topping is recommended to minimize shrinkage cracks.

Moisture present in the concrete at time refrigeration is turned on will gradually be drawn to the refrigerating coils.

ZONOLITE CONCRETE ROOF DECKS AND INSULATION

Zonolite Insulating Concrete has gained wide recognition in recent years as efficient roof insulation. It does not rot, disintegrate, or burn. There are no joints to open up. The insulation, including cants, saddles, and crickets, may be placed monolithically all at one time. Roof leaks will not deteriorate Zonolite Concrete because it is not affected by moisture. The customary built-up roof of asphalt or pitch-and-gravel is applied over the Zonolite Concrete slab after it has set and dried out.

ROOF DECKS

(Covered More Completely in Folder CA-5)

Support: Zonolite Concrete can be used effectively as the roof deck where joists or other support is provided at close spacing—up to 32". Where joists or purlins are widely spaced, a sub-purlin (usually a light "T" section) may be incorporated to provide proper spacing for support.

Insulation Value: A 3" Zonolite Concrete deck will provide a U factor for the roof of .24. Greater insulation values can be provided by increasing the thickness.

Strength: The strength of Zonolite Concrete decks depends upon the joist spacing, type of form and reinforcing used, and thickness of slab. The construction recommended will provide for 50 lbs. live load with an excellent safety factor.

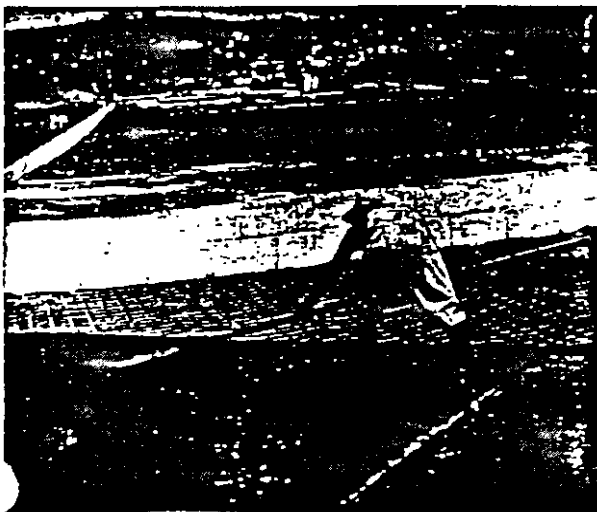
Joist Spacing	Min. Slab Thickness
Up to 16"	2"
16" to 24"	2½"
24" to 32"	3"

The 1-to-4 mix is recommended.

1-to-4	1 bag	Zonolite Concrete Aggregate
Mix	1 bag	Portland cement
	12 gals.	Water (Approx.)

This mix will cover approximately 14 sq. ft. 3" thick.

Forms: Permanent form material is recommended. The form shall be stiff enough to support the fresh



Structural deck, Zonolite Concrete over Steel

concrete until it has set. Paper-backed wire mesh (Steeltex), high rib metal lath, corrugated sheet steel, asbestos board, and some types of insulation boards provide satisfactory forming.

Reinforcing: High rib metal lath and Steeltex provide necessary reinforcing for the deck. When other types of form material are used, a reinforcing mesh must be embedded in the lower half of the slab. Use a 6"x6"x10 gauge welded wire mesh or equal.

ROOF INSULATION

(Covered More Completely in Folder CA-2)

Zonolite Concrete roof insulation is placed over a structural roof deck, such as concrete, steel, tile, wood, etc. If applied over a wood deck, cover the wood with a layer of waterproof paper before placing the concrete. The structural deck may be designed dead level. The lightweight Zonolite Concrete may be placed sloping to the drains. Thickness of the Zonolite Concrete shall be designed to provide the insulation value and/or drainage desired—minimum thickness, 2".

The 1-to-6 mix is recommended.

1-to-6	1½ bags	Zonolite Concrete Aggregate
Mix	1 bag	Portland cement
	18 gals.	Water (Approx.)

This mix will cover approximately 16 sq. ft. 4" thick.

ROOFING

APPLICATION OF BUILT-UP ROOFING: A Zonolite Concrete roof deck is ready for built-up roofing when it has developed the following characteristics:

1. **Surface Hardness:** Hardness of the surface shall be considered adequate when it will withstand foot traffic and other light operations of roofing, without damage; but it must be protected from gouging or excessive loads.

2. **Surface Finish:** Surface shall be firmly bound and free from loose material. The screeded surface finish shall be free from any extreme roughness capable of interfering with proper bonding of the felt.

3. **Surface Dryness:** The exposed surface shall look and feel substantially dry, and have a uniform gray-cement color. When in this state, the hot mopped bond coat will go on smoothly without frothing, and will adhere well to the surface.

MASONRY WALL INSULATION

Double (Cavity) Walls: Masonry walls can be very satisfactorily insulated by constructing a two-unit ("Cavity") wall, using two separate walls of tile or concrete block spaced 2½" or more apart. The cavity thus formed is filled with a very lean mix of Zonolite Concrete.

Lay up 3 or 4 courses of inside wall. Apply an asphalt paint as a vapor barrier to cavity side of this wall. The paint can be applied with a brush or sprayed on. Lay up outside wall to same level, and place necessary wall ties. Place Zonolite Concrete in cavity as soon as mortar used in laying up blocks has become thoroughly set. Zonolite Concrete should be rodded into cavity as each 3 or 4 courses of masonry are laid up.

Single Unit Walls: Concrete block walls can be insulated by filling the cores of the blocks with Zonolite Insulating Concrete. Due to the conductance through the solid portion of the block, this wall does not provide as much insulation as the double cavity wall described above, but provides approximately twice as much insulation value as the wall with the cores left open.

The 1-to-16 mix is recommended for masonry walls:

1-to-16 Mix	4 bags	Zonolite Concrete Aggregate
	1 bag	Portland cement
	48 gals.	Water (Approx.)

This mix will cover approximately 76 sq. ft. 2½" thick.

Mixing: For such installations, the Zonolite Concrete is more conveniently mixed in a mortar box, inasmuch as smaller quantities of concrete are needed at one time. A garden rake works well for mixing. To keep crew working continuously, tenders for the masons can mix up batches of Zonolite Concrete, and place it in the walls, following the masons.



Insulating cavity wall with Zonolite Concrete

ZONOLITE CONCRETE MILK COOLING TANKS

Zonolite Insulating Concrete makes an efficient, economical, insulated milk tank. The 1-to-3 mix is recommended:

1-to-3 Mix	¾ bag	Zonolite Concrete Aggregate
	1 bag	Portland cement
	4½ qts.	Zonolite Waterproofing Admix
	9 gals.	Water (Approx.)

This batch will make approximately 3 cu. ft. of concrete.

Zonolite Waterproofing Admix is specified in order to make a more waterproof concrete, particularly

important in a milk-cooling tank.

Mixing Directions: When Zonolite Waterproofing Admix is used, place correct amount of water in mixer, then the Admix, followed by the Portland cement. Mix slightly. Add Zonolite Concrete Aggregate, and mix to uniform and pourable consistency. Place promptly.

Walls of milk tank should be 8" thick, and reinforced with wire netting, as well as steel rods spaced 12" on center. Interior of tank should be painted with a good waterproof coating.

ZONOLITE INSULATING PLASTIC

(Covered More Completely in Folder G-23)



Zonolite Insulating Plastic is used principally by householders for insulating hot water tanks, furnaces, boilers, hot water and steam pipes, chimney flue openings, and stoves. It comes ready-mixed and needs only the addition of water.

Zonolite Insulating Plastic will stick to any clean surface without wrapping or reinforcing. It is fire-

proof and permanent, and can be easily applied with a trowel or the hands.

The formula is:

2 parts	Zonolite Insulating Plastic
1 part	Water, by volume

Warm water accelerates plasticizing.

One bag of Zonolite Insulating Plastic will cover approximately 12 sq. ft. ½" thick.

ZONOLITE REFRIGERATION INSULATION

(Covered More Completely in Cold Storage Manual CS-1)

Due to many special problems encountered in cold storage work, it is desirable that a competent refrigeration engineer be consulted for such installations. Our Engineering Department will be glad to advise regarding the use of Zonolite products.

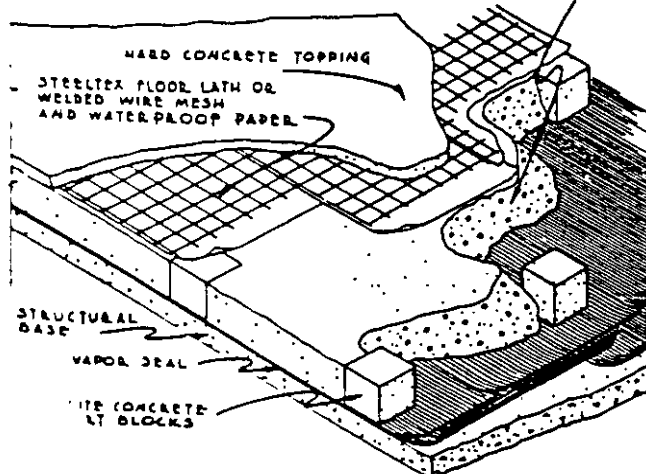
The following table shows minimum and recommended thicknesses of Zonolite Refrigeration-size Fill for temperatures to be maintained. The thickness of insulation affects the size and cost of refrigeration equipment. Cost of operation of a cold storage plant is also proportional to the thickness of insulation. The greater the thickness of insulation, the less will be the original cost of equipment, and the lower will be the operating cost. The refrigeration engineer who designs the installation can determine what insulation thickness will give the most practical and economical result. Zonolite is so inexpensive and easy to install that greater thicknesses can be economically used.

Temperature	Walls, Ceilings, Floors Above Ground		Floors on Ground	
	Minimum	Recommended	Minimum	Recommended
Above 50°	2"	4"	2"	3"
50 - 35	3"	5"	3"	4"
35 - 20	4"	6"	4"	5"
20 - 10	5"	8"	4"	6"
10 - 0	6"	10"	5"	8"
0 - -10	7"	12"	5"	8"
-10 - -20	8"	13"	6"	8"
Below -20	9"	14"	6"	8"

Zonolite Fill Cold Storage Floors with Pre-cast Zonolite Concrete Blocks: Zonolite Refrigeration-size Fill may be combined with pre-cast Zonolite Insulating Concrete blocks for insulating cold storage floors.

If the floor is to be built on the ground, place a 3" structural slab over a well-drained gravel fill. Best results can be obtained by constructing the structural floor above the ground, providing air circulation below the floor. Over the structural floor, apply the vapor barrier. Place pre-cast Zonolite Concrete blocks, at least 6" by 8" in cross section, spaced 2 ft. on center both ways. Blocks should be as high as needed to provide thickness of insulation required. After blocks are set in place, pour Zonolite Refrigeration-size Fill level with top of blocks. Roll waterproof paper over

ZONOLITE REFRIGERATION FILL



Zonolite Fill-type cold storage floor construction

Zonolite to keep insulation dry while placing concrete. Place a structural concrete slab 3" thick. The structural slab should be reinforced with a 6" by 6" by 10 gauge reinforcing mesh. Two sizes of Zonolite Concrete blocks, 6" by 8" by 10" or 8" by 10" by 12" are suitable for Zonolite Cold Storage floor installations.

For Zonolite Concrete cold storage floors, see p. 9.

Installing Zonolite Refrigeration-size Fill in Side-walls and Ceilings: When Zonolite Refrigeration-size Fill is poured into walls or sloping ceilings, these areas must be vibrated or rodded during installation.

All types of wall construction must be built to eliminate any movement or bulging which would permit settling of the insulation. In hollow masonry construction, all interior joints should be carefully filled with mortar to prevent sifting of the Zonolite Fill into the cores.

Side-wall insulation should connect directly with ceiling and floor insulation, so that no breaks or joints occur. The use of balloon-type construction having no plates or fire-stops at the ceiling and floor line makes it possible to install Zonolite Refrigeration-size Fill so that wall, ceiling, and floor insulation is continuous.



Cavity tile wall showing vapor barrier

Cold Storage Vapor-Proofing: The vapor-proofing of any construction used for cold storage insulation is exceedingly important. Due to the wide difference in temperature between the inside and outside of the cold storage room, vapor pressure becomes great on the warm side of the walls, ceiling, and floor. Too much passage of moisture-vapor will result in condensation within the insulation. Moisture within the insulation reduces efficiency and increases operating costs.

There are two acceptable types of vapor barrier. Select the type most adaptable to the type of construction used.

(1) Two layers of glossy-surfaced, asphalt-impregnated paper with edges lapped 4" and sealed. (Treated Sisalkraft, Bird's Neponset, Ruberoid's Giant Sheathing Paper, or equal.)

(2) Two layers of tarred felt in three moppings of hot pitch.

The vapor barrier is placed only on the warm side of the insulation. Any cracks or openings in the vapor barrier, even though only the size of a nail hole, should be sealed. The heads of the nails which secure the vapor barrier to the studding should also be sealed.



REALLY STOPS HEAT



THE MODERN MIRACLE OF INSULATION

FIRST PRINTING - MARCH, 1946
SECOND PRINTING - JUNE, 1946
THIRD PRINTING - JANUARY, 1949
FOURTH PRINTING - JULY, 1949
FIFTH PRINTING - JANUARY, 1950

SIXTH PRINTING - SEPTEMBER, 1950
SEVENTH PRINTING - MAY, 1951
EIGHTH PRINTING - AUGUST, 1951
NINTH PRINTING - APRIL, 1952
TENTH PRINTING - APRIL, 1953

ELEVENTH PRINTING - MARCH, 1954

INSULATION
ZONOLITE
H A N D B O O K

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NESS MOTLEY4TH FL

NO 9941 P. 241

Zonolite®

Vermiculite Attic Insulation



PROPERTIES

Easy to install—Just open the bag, pour Zonolite, level it.

***Fire resistant**—All mineral, won't burn.

Rot and vermin resistant—Inorganic, no food value to support animal life.

Fills solidly—Pours freely around obstructions. Fits snugly against attic joists.

Non-settling—Holds its full thickness under most severe conditions.

Permanent as the earth itself. Lasts the life of the building. Need never be replaced.

Non-irritating—Will not cause skin irritation common with other types of insulation.

Economical, efficient—Low initial cost, plus yearly savings that pay for the insulation in as little as three heating seasons.

*Underwriters' Laboratories, Inc., Fire Hazard Classification for Zonolite Vermiculite Attic Insulation

Flame Spread	0
Fuel Contributed	0
Smoke Developed	0

Homeowners can re-insulate their attics in only a few hours. New, clean, easy-to-handle Zonolite bags can be carried home in a car.

Zonolite Vermiculite Attic Insulation is a free-flowing granular mineral well suited to insulation of horizontal areas such as attics. When installed to recommended thicknesses, it sharply reduces heating and cooling costs, and greatly increases personal comfort.

Packed in convenient lightweight bags, Zonolite Attic Insulation is simply poured between joists and leveled to desired thickness. One man can usually insulate the average home attic in two to four hours.

Zonolite can be poured over existing insulations which are of insufficient thickness due to improper installation or settling. Many homes lack proper thickness of insulation, with resultant waste in fuel or electricity, and sacrifice of comfort. Zonolite will protect underlying combustible insulations and fill voids along joists, around wiring, pipes, or braces.

CMHCAcceptance Number 215

See reverse

ZAI 000180

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NO 9941 P. 8/41

Keep the HOT out

GOOL^{IN}

with

ZONOLITE
ATTIC INSULATION

APPROXIMATE COVERAGE PER 3 CU. FT. BAG						
Thickness	2"	3"	†3½"	4"	5"	††5½"
Sq. Ft.	20	13	11½	10	8	6½
			† Nominal 4"		†† Nominal 6"	

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WI 315 Printed in U.S.A. 3173

Keep the HOT out

GOOL^{IN}

ZONOLITE

HI-316

ZAI 002465

JAN 19 2001 11 08AM

NESS MOTLEY 4TH FL

NO. 9941 P. 9/411

Keep the HOT out



Your house can be 15 degrees cooler this summer by using Zonolite[®] insulation in your attic before the HOT arrives. Insulate during the leisure hours of your weekend. It's a family type fun project that will pay off in comfort and savings.

and the

GOOL^{IN}

Zonolite is easy to install — just pour it right from the bag between attic joists, on top of old insulation or where there's no insulation at all. Six inches of Zonolite will ensure you years and years of snug, comfortable living — summer and winter.

Besides keeping summer heat out and winter heat in, ZONOLITE does not burn or attract vermin. Economical, too, because savings in fuel and power costs can pay for the insulation in a few years. Get to your attic before the heat in your attic gets to you.

ZAI 002466

38

JAN 19 2001 11 08AM

NESS MOTLEY 4TH FL

NC 9941 P 10 41



**ALL MINERAL
VERMICULITE**
NET WEIGHT 12 POUNDS

GRACE
CONSTRUCTION PRODUCTS DIVISION

A Brighter Look, For More Insulation Sales

Pretty soon you'll be seeing a new face on our plastic bag. Yes, we've updated the Zonolite® Attic Insulation bag, and it's targeted at today's energy-conscious Do-It-Yourselfers.

Take a look. We've chosen an attention-getting warm red color to stop store traffic. The front has been uncluttered, and an attractive thermal graphic symbol added, along with a description of the contents... all-mineral vermiculite.

And, what's more, the back of this new bag contains all the information your customers need... product benefits, installation instructions, plus an easy-to-use coverage and "R" value chart.

This new bag is part of the 1979-80 Zonolite Merchandising Program, and it fits nicely into this year's point-of-purchase displays to really dress up your insulation section and help you sell more vermiculite attic insulation.

The change over has already started, so keep your eyes open and ask your Zonolite representative for more details.

GRACE

CONSTRUCTION PRODUCTS DIVISION

ZAI 002719

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HT402 JSM

Printed in USA 679

EXHIBIT 45

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 5 BERNSTEIN, LLP
 6 Embarcadero Center West, 30th Floor
 7 275 Battery Street
 8 San Francisco, CA 94111

9 NESS MOTLEY LOADHOLT RICHARDSON & POOLE
 10 151 Meeting Street, Suite 600
 11 P O Box 1137
 12 Charleston, SC 29402

13 LUKINS & ANNIS, P.S
 14 1600 Washington Trust Financial Center
 15 717 W Sprague Ave.
 16 Spokane, WA 99201-0466

17 COHEN, MILSTEIN, HAUSFELD & TOLL, P.L.L.C.
 18 999 Third Avenue, Suite 3600
 19 Seattle, WA 98104

20 Attorney: for Plaintiffs

21 **UNITED STATES DISTRICT COURT**
 22 **DISTRICT OF MONTANA**
 23 **MISSOULA DIVISION**

<p>24 PAUL PRICE, JOHN PREBIL and 25 MARGERY PREBIL, on behalf of themselves 26 and all others similarly situated, Plaintiffs, v. W.R. GRACE & COMPANY (a Delaware corporation), W.R. GRACE & COMPANY- CONN (a Connecticut corporation); W.R. GRACE & CO, a/k/a GRACE, an association of business entities; SEALED AIR CORPORATION (a Delaware corporation), Defendants.</p>	<p>Cause No. AFFIDAVIT OF JOHN HOLBROOK</p>
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AFFIDAVIT OF JOHN HOLBROOK



1 STATE OF MONTANA)
2 County of Missoula) ss.

3 1. John Holbrook, being first duly sworn, deposes and states: I am a
4 homeowner in Missoula, Montana. I have personal knowledge of the matters herein
5 stated.

6 2. My home was built in 1897 and was later insulated with vermiculite attic
7 fill insulation.

8 3. Recently, I read about the litigation over Zonolite operation and the attic fill
9 insulation. Before reading this I was unaware that the vermiculite insulation in my home
10 contained asbestos.

11 4. There are a number of activities which cause me concern about exposure to
12 asbestos from the attic insulation. Part of the attic area is used as storage. Dust blows
13 into this storage area and down the staircase where a bedroom previously used by my
14 daughter and now used by my wife is located.

15 5. Over the years I have conducted a number of remodeling projects. On one
16 occasion I put new electrical wiring in the ceiling area. This project required that I
17 shovel, push to the side, and ultimately replace the insulation.

18 6. In another remodel project the ceiling was torn out of our bathroom. Before
19 tearing the ceiling down, I shoveled and moved most of the insulation to one side and
20 blocked it. Some of the insulation dropped into the bathroom area during this project.

21 7. In all of the remodeling and rewiring activities, I was required to spend a
22 substantial amount of time moving and disturbing the vermiculite insulation, and during
23 these procedures, it was very dusty.

24
25 FURTHER THE AFFIANT SAYETH NOT.

26
AFFIDAVIT OF JOHN HOLBROOK

1
2
3 John Holbrook
4 John Holbrook

5 SUBSCRIBED AND SWORN to before me this 21st day of July, 2000
6
7

8
9 (SEAL)

10 David E. Camar
11 Notary Public for the State of Montana
12 Residing at: Missoula 59812
13 My Commission expires: 04/08/02
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AFFIDAVIT OF JOHN HOLBROOK

EXHIBIT 46

UNITED STATES DISTRICT COURT
DISTRICT OF MONTANA
MISSOULA DIVISION

PAUL PRICE, JOHN PREBIL and MARGERY
PREBIL, on behalf of themselves and all others
similarly situated,

Plaintiffs,

vs.

W.R. GRACE & COMPANY (a Delaware
corporation); W.R. GRACE & COMPANY-CONN
(a Connecticut corporation); W.R. GRACE & CO.,
a/k/a GRACE, an association of business entities;
SEALED AIR CORPORATION (a Delaware
corporation),

Defendants.

No. CV 00-71-M-DWM

AFFIDAVIT OF RAND HATCH IN
SUPPORT OF PLAINTIFFS'
APPLICATION FOR PRELIMINARY
INJUNCTION AND EMERGENCY
NOTICE TO CLASS MEMBERS

PLAINTIFF'S
EXHIBIT

46

MDL 1376

STATE OF WASHINGTON)
) ss.
1 County of Spokane)

2 RAND HATCH, being first duly sworn on oath deposes and states that:

3 1. My name is Rand Hatch. I am over the age of 18, competent to testify, and provide
4 the following information from my own personal experience.

5 2. My family and I just purchased a home at 1404 Lakeside Road on Liberty Lake, in
6 Spokane County, Washington. The home has been in my family since approximately 1970, when
7 it was purchased by my father. After my father died in May of 1999, I purchased the home.

8 3. I have a wife, Susan. We have been married to each other for 26 years. We are
9 currently living in an apartment while we complete remodeling work on our new home. Our lease
10 expires at the end of April and we had planned to move into the lakefront home on April 30th.

11 4. The attic in our new Liberty Lake home is filled with approximately eight inches of
12 Zonolite Brand Attic Insulation. The photo marked as Exhibit 1 is a true and accurate picture of a
13 bag of Zonolite Attic Insulation that was in the attic when we bought the home.

14 5. During my growing up, when the house was owned by my father, I would
15 occasionally go up into the attic to help my father do electrical wiring or help with other household
16 maintenance. These activities required us to move the vermiculite and created clouds of dust in the
17 air.

18 6. My father also stored some of his records in the attic and we would occasionally go
19 into the attic to store or retrieve those records.

20 7. My father remodeled the home in 1985. I had a construction business at that time.
21 I assisted in that remodeling along with a couple of my carpenters. This involved going into the attic
22 and locating wiring for purposes of rewiring. Wires dove down into the Zonolite. Therefore to
23 locate the lighting fixtures from above, you had to move the Zonolite. Again, this activity created
24 clouds of dust in the air.

25 8. About a month ago my wife, Susan, and I began remodeling our Liberty Lake home
26 in preparation for our moving in. Projects included removing and relocating interior walls, removing

part of the ceiling, and cutting various openings into the ceiling for plumbing, electrical wiring, and electrical fixtures.

9. I hired a plumber to do some of the plumbing. I was present when he cut two holes approximately three inches in diameter in the ceiling to relocate venting for bathroom plumbing. When he did this, Zonolite Attic Insulation poured down from the attic above into the main floor of the home. The Zonolite Attic Insulation created so much dust that the plumber joked, "maybe this will put me out of my misery." Neither of us wore a dust mask.

10. I knocked down one interior wall on the main floor to enlarge a room and construct two bathrooms. When I did this, Zonolite Insulation rained down from the attic space above into the main living area of our home. This also created a lot of dust. I attempted to sweep up the Zonolite Insulation that has fallen into the main floor, but it created so much dust that I abandoned this effort and used a shop vacuum.

11. I took down some ceiling tiles in our basement. When I did this I was surprised when Zonolite Attic Insulation fell from the basement ceiling into the finished basement area. Apparently attic insulation had filtered down through openings in the floor from a wall I had moved into the ceiling space of the basement. This also created a lot of dust.

12. Our plans required tearing out part of the ceiling on the main floor of our home. Above the ceiling between the joists was about eight inches of Zonolite Attic Insulation. I went into the attic and used my shop vacuum in an attempt to vacuum up the Zonolite Attic Insulation from between the attic rafters so that I could bag it. When the vacuum would fill up with vermiculite I would take the vacuum into the garage and transfer it from the shop vacuum canister into garbage bags. The shop vacuum was on the main floor living area when I vacuumed, with its long vacuum hose leading up into the attic where I was working. So much dust was created that I opened all the windows in the house.

13. Vacuuming was going so slow that I switched to shoveling the vermiculite from between the rafters directly into plastic garbage bags that I brought up into the attic. It was like a reverse snowstorm. There was very very fine dust that was just suspended in the air. I remember

1 thinking to myself, "I'm glad this stuff doesn't contain asbestos." At the time I was wearing a mask
2 I bought from Zieglers. Unfortunately, it was not the type of mask for working around asbestos.

3 14. After I had shoveled into bags as much as I could, I again used the shop vacuum to
4 vacuum up all the fine dust that remained at the bottom of the rafters.

5 15. Some of the bags of Zonolite Attic Insulation I left by the road for the garbage
6 service. A couple of bags I took to the dump myself. There are a number of large plastic garbage
7 bags of the material still in my attic.

8 16. The work I did shoveling Zonolite from between rafters and into bags was on Friday,
9 March 24, 2000. Two days later, on Sunday, I was sitting in our kitchen with my wife reading the
10 newspaper.

11 17. I was reading the sports page and she was reading the front page. She asked me
12 whether our insulation was Zonolite Attic Insulation. She was reading a Spokesman Review article
13 that a class action had been filed in Spokane County related to the health hazards of that product.

14 18. Until my wife and I read the Spokesman Review article about this suit, we had no
15 idea that there were any risks associated with exposure to Zonolite. The bag in our attic says "Just
16 Pour and Level" and shows a drawing of a man without any protective gear pouring the stuff into
17 the rafters at his feet.


18 19. I did wear a mask when vacuuming and shoveling and while in the attic. I never wore
19 it when down below. Unfortunately, the mask was not designed to protect an individual from
20 exposure to asbestos fibers.

21 20. Zonolite Attic Insulation can now be found all over in the main living area of our
22 house. Exhibit 2 shows Zonolite on framing under one of our windowsills on the main floor.
23 Exhibit 3 shows Zonolite in a corner of the closet to the master bedroom. Exhibit 4 shows Zonolite
24 still coming down from between the ceiling and the walls. Exhibit 5 shows where Zonolite has piled
25 up in the opening for one of our pocket doors. Exhibit 6 shows some of the vermiculite that has
26 worked its way down into our basement.

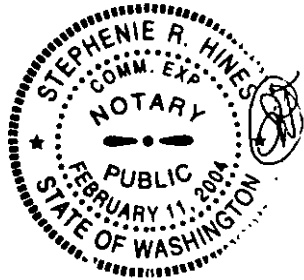
21. We have had to halt our remodeling work until we get professional advice on how
we should proceed in light of the asbestos. I am worried about how contaminated our house is, and

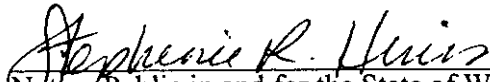
1 what precautions and cleanup needs to be conducted in order to safely complete the projects and
2 make the house safe. Susan and I have always been health conscious and are very much concerned
3 about how the work we have conducted in and around the vermiculite attic insulation may effect our
4 health in the future.

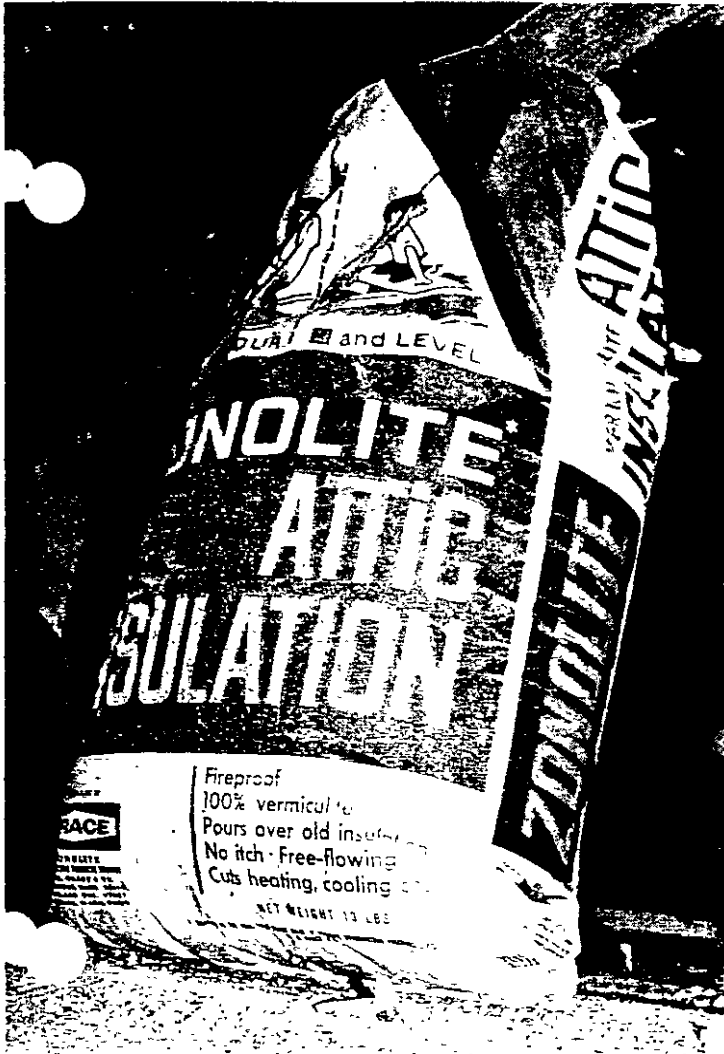
5 DATED this 20th day of July, 2000.

6 
7 RAND HATCH

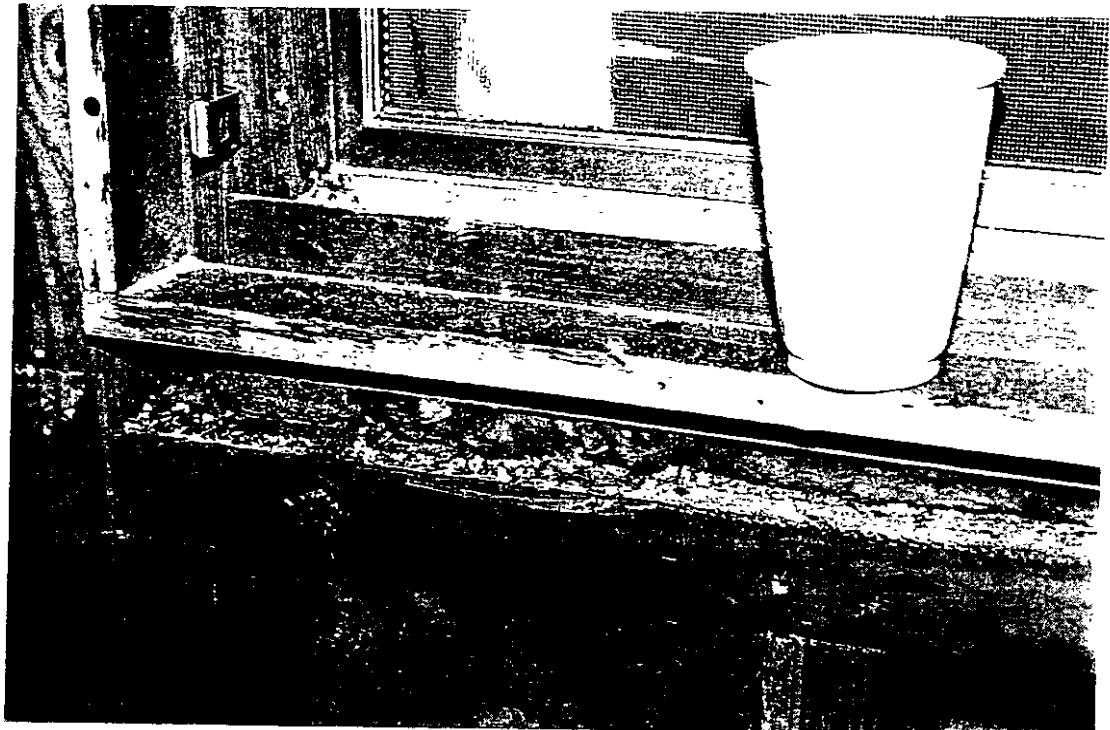
8 SUBSCRIBED AND SWORN to before me this 20th day of July, 2000.




Notary Public in and for the State of Washington
Residing at Sakane WA
My commission expires: 2/11/04
Stephenie R Hines



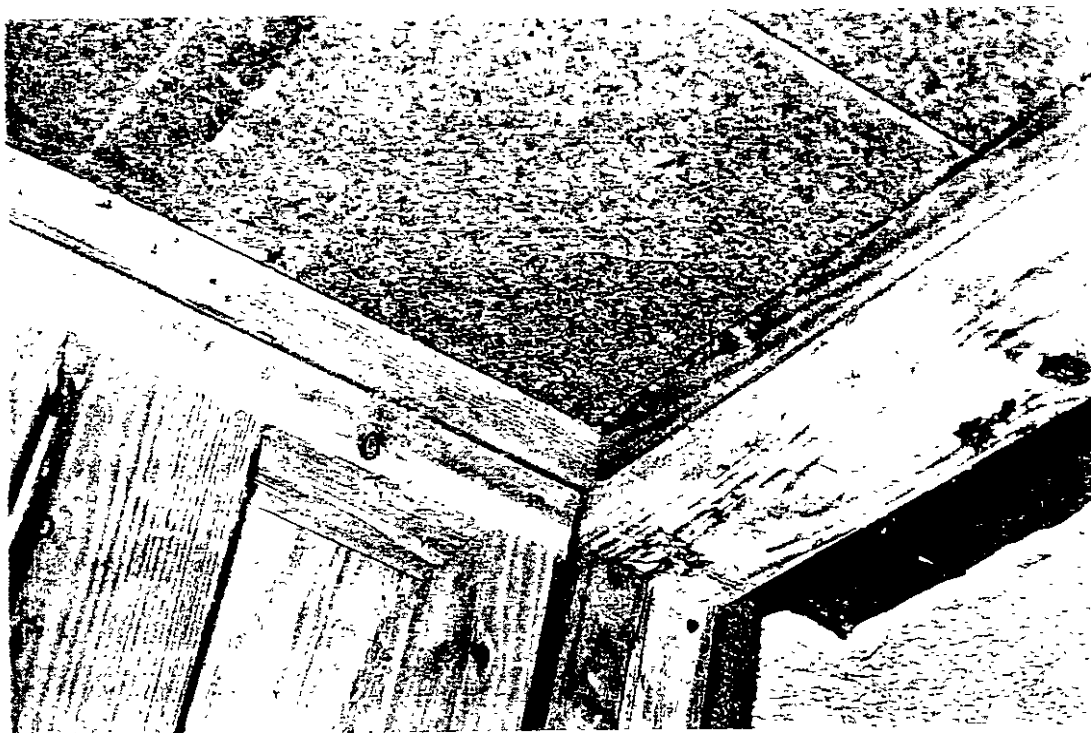
Hatch
Exhibit 1



Hatch
Exhibit 2



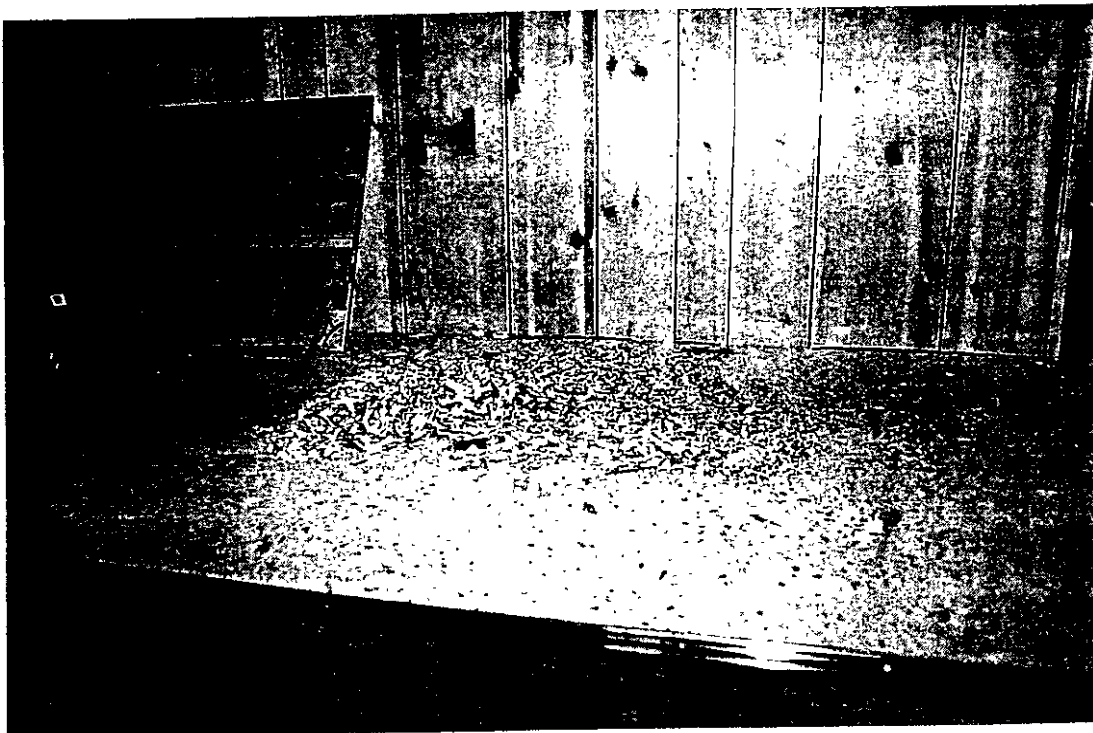
Hatch
Exhibit 3



Hatch
Exhibit 4



Hatch
Exhibit 5



Hatch
Exhibit 6

EXHIBIT 46

UNITED STATES DISTRICT COURT
DISTRICT OF MONTANA
MISSOULA DIVISION

PAUL PRICE, JOHN PREBIL and MARGERY
PREBIL, on behalf of themselves and all others
similarly situated,

Plaintiffs,

vs.

W.R. GRACE & COMPANY (a Delaware
corporation); W.R. GRACE & COMPANY-CONN
(a Connecticut corporation); W.R. GRACE & CO.,
a/k/a GRACE, an association of business entities;
SEALED AIR CORPORATION (a Delaware
corporation),

Defendants.

No. CV 00-71-M-DWM

AFFIDAVIT OF RAND HATCH IN
SUPPORT OF PLAINTIFFS'
APPLICATION FOR PRELIMINARY
INJUNCTION AND EMERGENCY
NOTICE TO CLASS MEMBERS

PLAINTIFF'S
EXHIBIT

46

MDL 1376

1. My name is Rand Hatch. I am over the age of 18, competent to testify, and provide the following information from my own personal experience.

3. I have a wife, Susan. We have been married to each other for 26 years. We are currently living in an apartment while we complete remodeling work on our new home. Our lease expires at the end of April and we had planned to move into the lakefront home on April 30th.

5. During my growing up, when the house was owned by my father, I would occasionally go up into the attic to help my father do electrical wiring or help with other household maintenance. These activities required us to move the vermiculite and created clouds of dust in the air.

7. My father remodeled the home in 1985. I had a construction business at that time. I assisted in that remodeling along with a couple of my carpenters. This involved going into the attic and locating wiring for purposes of rewiring. Wires dove down into the Zonolite. Therefore to locate the lighting fixtures from above, you had to move the Zonolite. Again, this activity created clouds of dust in the air.

AFFIDAVIT OF RAND HATCH - 2

part of the ceiling, and cutting various openings into the ceiling for plumbing, electrical wiring, and electrical fixtures.

9. I hired a plumber to do some of the plumbing. I was present when he cut two holes approximately three inches in diameter in the ceiling to relocate venting for bathroom plumbing. When he did this, Zonolite Attic Insulation poured down from the attic above into the main floor of the home. The Zonolite Attic Insulation created so much dust that the plumber joked, "maybe this will put me out of my misery." Neither of us wore a dust mask.

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11. I took down some ceiling tiles in our basement. When I did this I was surprised when Zonolite Attic Insulation fell from the basement ceiling into the finished basement area. Apparently attic insulation had filtered down through openings in the floor from a wall I had moved into the ceiling space of the basement. This also created a lot of dust.

12. Our plans required tearing out part of the ceiling on the main floor of our home. Above the ceiling between the joists was about eight inches of Zonolite Attic Insulation. I went into the attic and used my shop vacuum in an attempt to vacuum up the Zonolite Attic Insulation from between the attic rafters so that I could bag it. When the vacuum would fill up with vermiculite I would take the vacuum into the garage and transfer it from the shop vacuum canister into garbage bags. The shop vacuum was on the main floor living area when I vacuumed, with its long vacuum hose leading up into the attic where I was working. So much dust was created that I opened all the windows in the house.

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1 thinking to myself, "I'm glad this stuff doesn't contain asbestos." At the time I was wearing a mask
2 I bought from Zieglers. Unfortunately, it was not the type of mask for working around asbestos.

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10 newspaper.

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13 that a class action had been filed in Spokane County related to the health hazards of that product.

14 18. Until my wife and I read the Spokesman Review article about this suit, we had no
15 idea that there were any risks associated with exposure to Zonolite. The bag in our attic says "Just
16 Pour and Level" and shows a drawing of a man without any protective gear pouring the stuff into
17 the rafters at his feet.


18 19. I did wear a mask when vacuuming and shoveling and while in the attic. I never wore
19 it when down below. Unfortunately, the mask was not designed to protect an individual from
20 exposure to asbestos fibers.

21 20. Zonolite Attic Insulation can now be found all over in the main living area of our
22 house. Exhibit 2 shows Zonolite on framing under one of our windowsills on the main floor.
23 Exhibit 3 shows Zonolite in a corner of the closet to the master bedroom. Exhibit 4 shows Zonolite
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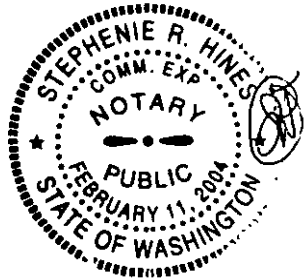
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we should proceed in light of the asbestos. I am worried about how contaminated our house is, and

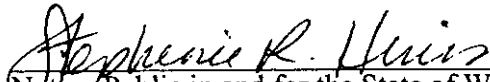
1 what precautions and cleanup needs to be conducted in order to safely complete the projects and
2 make the house safe. Susan and I have always been health conscious and are very much concerned
3 about how the work we have conducted in and around the vermiculite attic insulation may effect our
4 health in the future.

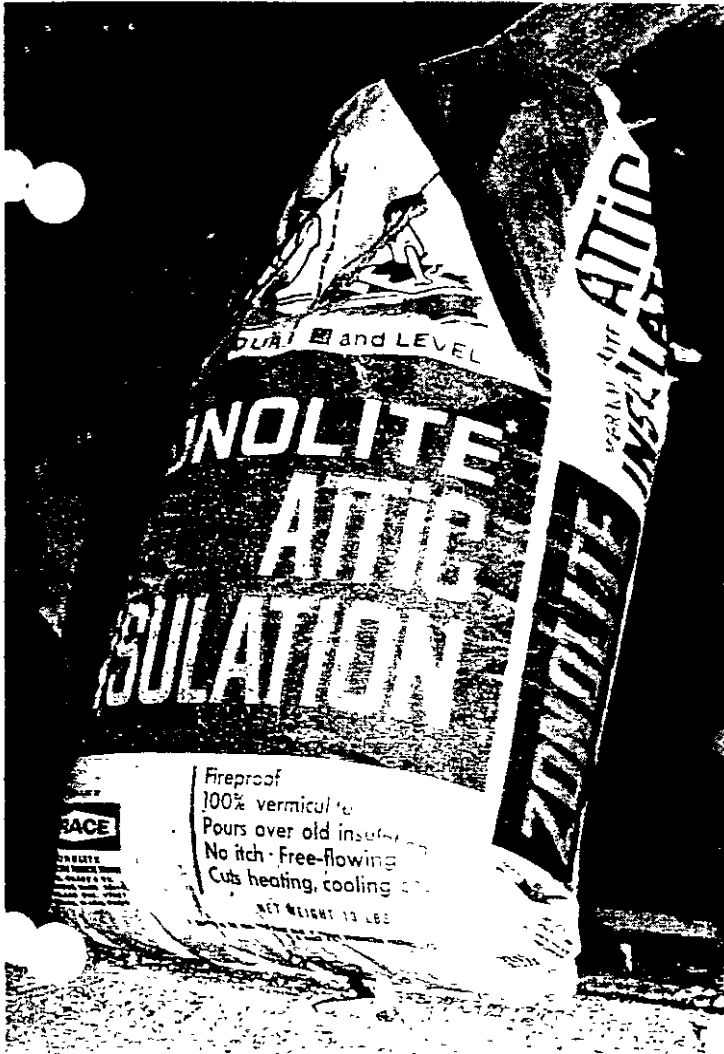
5 DATED this 20th day of July, 2000.

6 
7 RAND HATCH

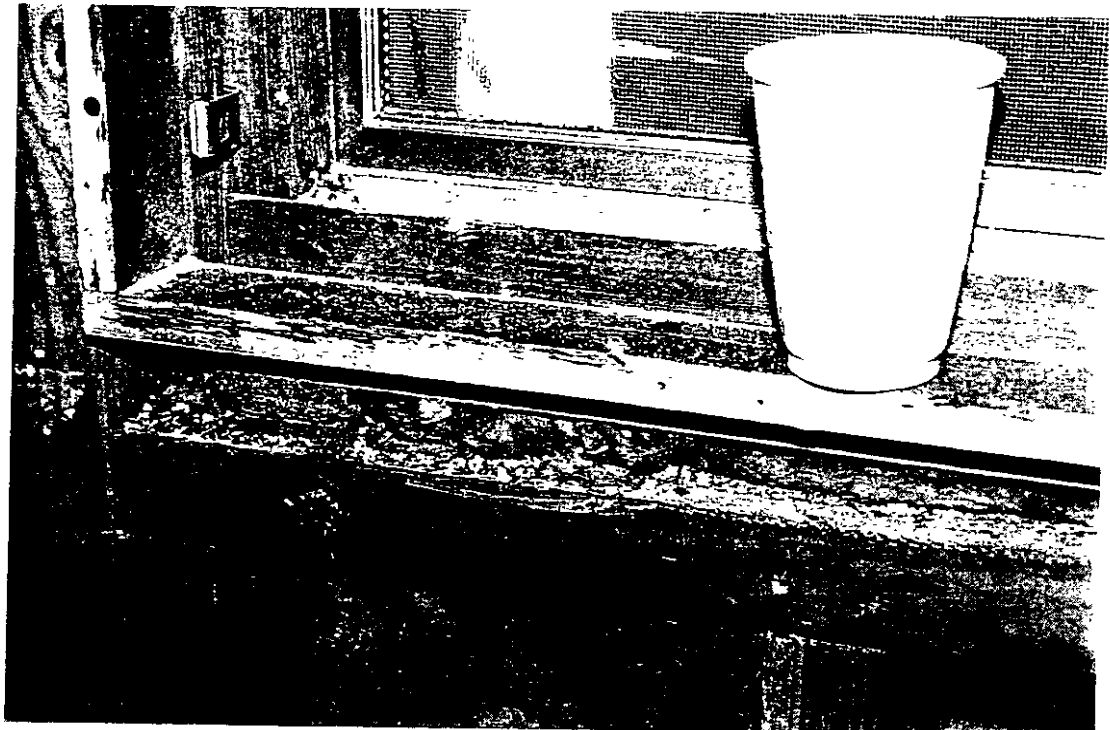
8 SUBSCRIBED AND SWORN to before me this 20th day of July, 2000.




Notary Public in and for the State of Washington
Residing at Sakane WA
My commission expires: 2/11/04
Stephenie R Hines



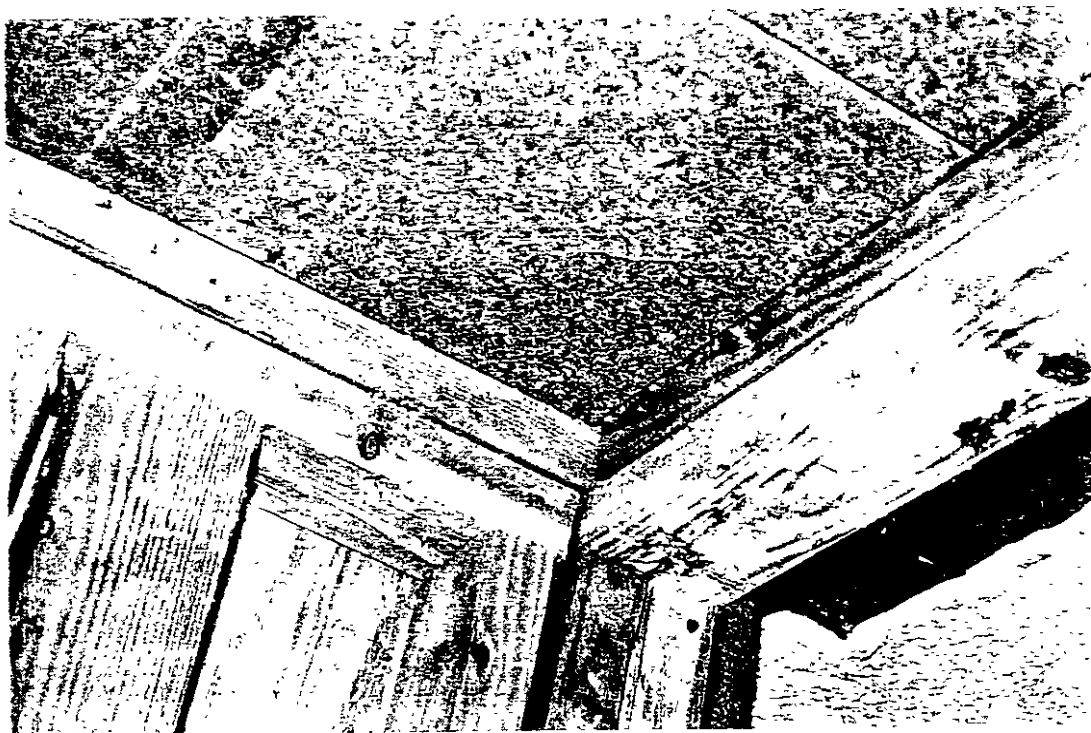
Hatch
Exhibit 1



Hatch
Exhibit 2



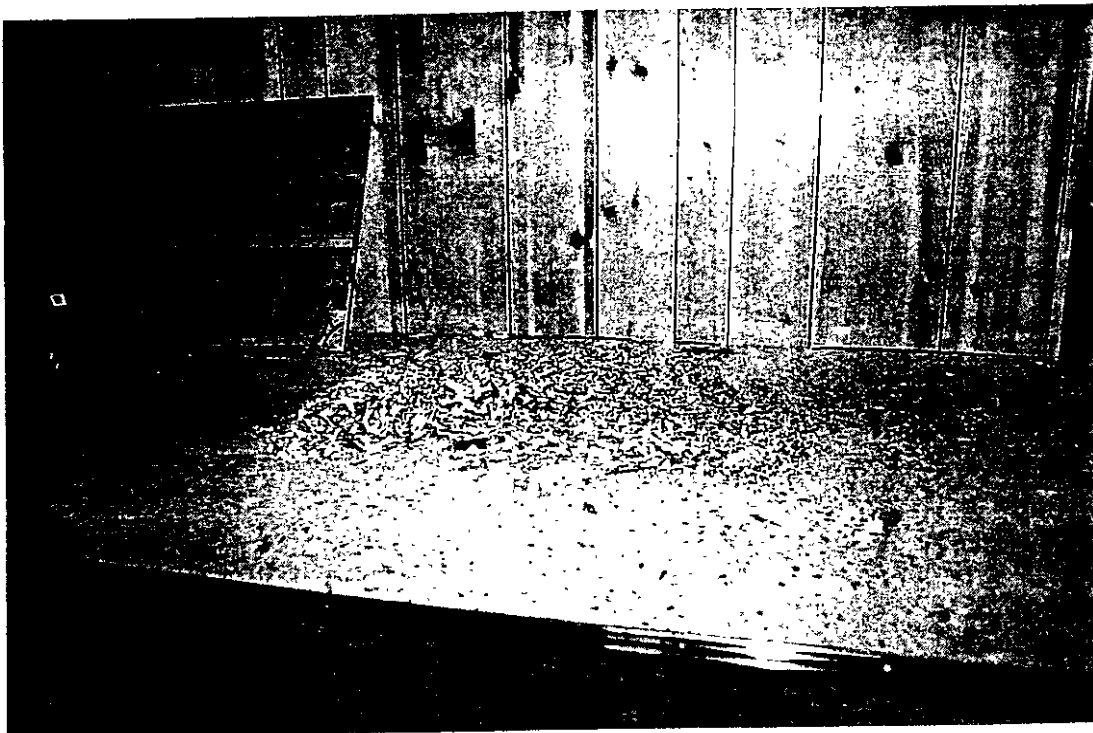
Hatch
Exhibit 3



Hatch
Exhibit 4



Hatch
Exhibit 5



Hatch
Exhibit 6

EXHIBIT 47

UNITED STATES DISTRICT COURT
DISTRICT OF MONTANA
MISSOULA DIVISION

PAUL PRICE, JOHN PREBIL and MARGERY
PREBIL, on behalf of themselves and all others
similarly situated,

Plaintiffs,

vs.

W.R. GRACE & COMPANY (a Delaware
corporation); W.R. GRACE & COMPANY-CONN
(a Connecticut corporation); W.R. GRACE & CO.,
a/k/a GRACE, an association of business entities;
SEALED AIR CORPORATION (a Delaware
corporation),

Defendants.

No. CV 00-71-M-DWM

AFFIDAVIT OF RALPH BUSCH IN
SUPPORT OF PLAINTIFFS'
APPLICATION FOR PRELIMINARY
INJUNCTION AND EMERGENCY
NOTICE TO CLASS MEMBERS

PLAINTIFF'S
EXHIBIT

47

MDL 1376

STATE OF WASHINGTON)
) ss.
County of Spokane)

RALPH BUSCH, being first duly sworn on oath deposes and states that:

1. My name is Ralph Busch. I am over the age of 18, competent to testify, and provide the following information of my own personal knowledge.

2. My wife, Donna Duncan, and I own a home at W. 1512 14th, in Spokane, Washington. Over the last year and a half we have been remodeling our home. Donna and I have been doing the work. Our home contains vermiculite insulation in the attic, as well as in the ceiling space in an addition to our home.

3. One of our projects involves removing the ceiling to add an addition to our home. I didn't know at the time I started this work that vermiculite insulation was contained between the ceiling and flooring of the room immediately above it. When I removed layers of sheet rock, tarpaper, and bead board from the ceiling, vermiculite came pouring down on me and into the living area of our house. I then used a five-gallon shop vacuum to vacuum the vermiculite out of the ceiling space as I tore additional ceiling out.

4. The vermiculite dust from this work was so thick that Donna complained that it was being carried throughout the house. We then put up a temporary plastic curtain between the addition and our kitchen in an effort to reduce the migration of dust.

5. I tried to use a simple paper dust mask when I did this work because of all the vermiculite dust. The dust mask didn't allow me to wear my glasses, so on occasion I would work without the dust mask.

6 Tearing out the ceiling resulted in piles of vermiculite on our floor and in corners of the room, which I swept up with a broom. This created a cloud of dust in the air.

7. I had heard that vermiculite was a good soil fortifier, so the vermiculite insulation we were handling was spread into our gardens around our home.

8. Our ceiling is not yet completely torn out and some vermiculite remains to be removed.

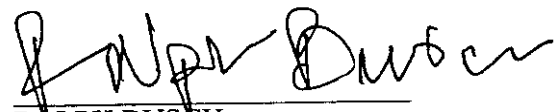
9. Our attic is also filled with about six to eight inches of vermiculite insulation. Since July of last year, I have spent several eight-hour days in the attic doing work. I hauled planks up into the attic and put them over the top of the vermiculite to walk on. The planks were constantly moved around atop the vermiculite to give me stability, creating a cloud of vermiculite dust in the attic where I was working. Attached as Exhibit "A" is a true and accurate photograph of some of the planking in our attic as I left them.

10. During my work in the attic, vermiculite would spill and vermiculite dust would filter into our bedroom closet, where the attic access is located. My wife or I would sweep it up, which put dust into the air.

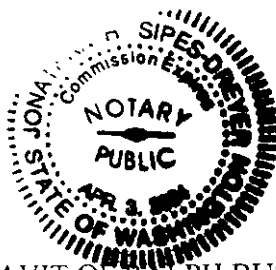
11. After doing all of the above, I learned for the first time, through reading a newspaper article about this suit, that Zonolite Attic Insulation contains tremolite asbestos. The article advised us to not touch it. Donna and I have now halted our renovation projects because of concerns for our health and concern that we will further contaminate our house.

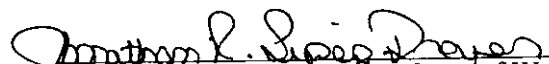
12. My wife and I find ourselves in the middle of renovation work that requires disturbing and working in and around vermiculite insulation. Dust from vermiculite insulation may have now contaminated our house. We are concerned about the costs of safely completing our remodeling projects. I am worried about my own health and the health of my wife since we may have been exposed to Zonolite Attic Insulation over the last year and a half. I am also concerned about continued exposure because the vermiculite keeps showing up, some dropping out of the ceiling if you slam the door. Our dog Bleu runs around in our gardens and brings it in on her paws.

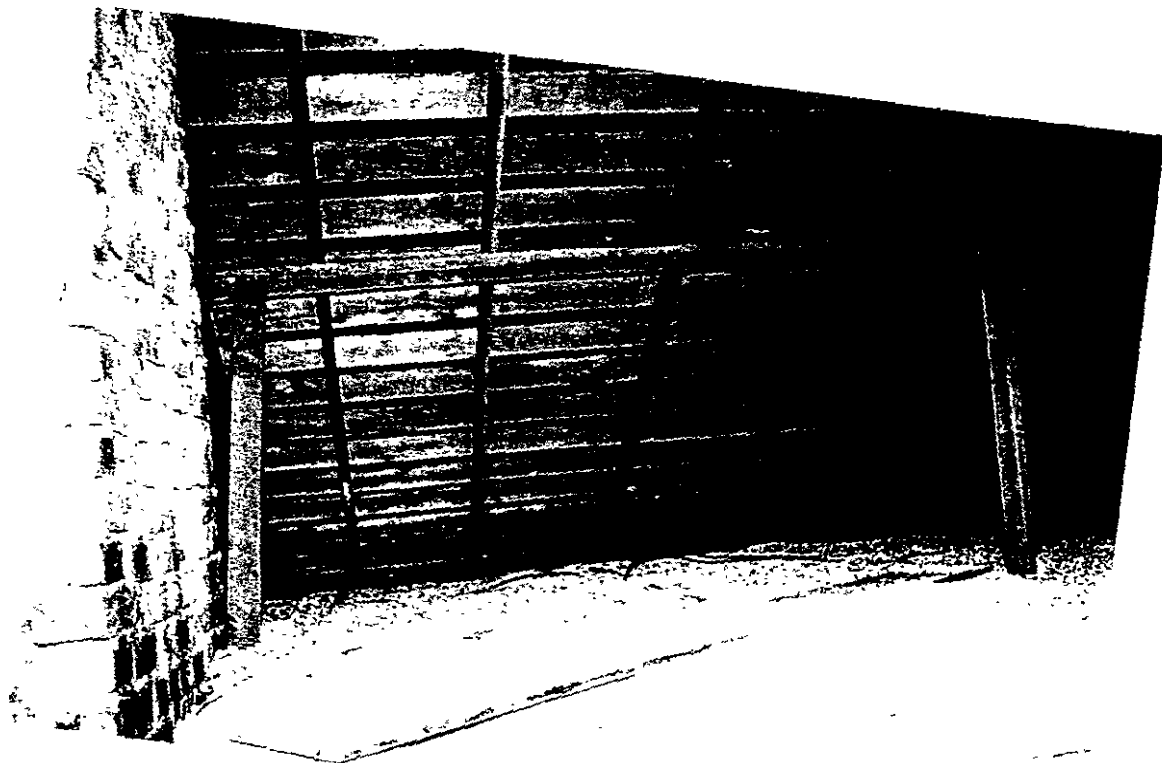
DATED this ____ day of July, 2000.


RALPH BUSCH

SUBSCRIBED AND SWORN to before me this 20th day of July, 2000.




Notary Public in and for the State of Washington
Residing at Spokane
My commission expires: April 3, 2004



Busch
Exhibit A